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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SHERAZ RASHID, OMAR Z. RAZA, and ASIMA SILVA

Appeal 2020-002087
Application 15/452,219
Technology Center 3600

Before MURRIEL E. CRAWFORD, CYNTHIA L. MURPHY, and BRUCE T. WIEDER, *Administrative Patent Judges*.

MURPHY, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellant[1] appeals from the Examiner's rejections of claims 1, 3–10, and 12–20 under 35 U.S.C. §§ 101 and 112. We sustain the rejection under 35 U.S.C. § 101 (Rejection I), but we do not sustain the rejection under 35 U.S.C. § 112 (Rejection II). As we sustain at least one rejection for each claim on appeal, we AFFIRM.[2]

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[1] The Appellant is the "applicant" (e.g., "the inventor or all of the joint inventors") as defined in 37 C.F.R. § 1.42. "International Business Machines Corporation" is identified as the real party in interest. (Appeal Br. 1.)

[2] We have jurisdiction over this appeal under 35 U.S.C. § 134 and 35 U.S.C. § 6(b).

THE APPELLANT'S INVENTION

The Appellant's invention "relates to the automated determination of feedback for an event from event attendees." (Spec. ¶ 1.) The event may be a "conference" at which "a designated speaker of the event deliver[s] a presentation" to the attendees." (*Id.* ¶ 17.)

Measuring, analyzing, and monitoring the views, sentiments, and opinions of groups can be of great importance to many industries," such as "retailers" and "marketing agencies." (Nicolov[3] ¶ 5.) For example, in a media-presentation setting, "emotions are a key indicator of how well viewers like or dislike a particular media item, and if they will watch it again." (Lee[4] ¶ 12.) It follows, therefore, that a person coordinating an event (i.e., an event coordinator) would want to receive meaningful feedback from the attendees for commercial reasons. (*See* Spec. ¶ 19.) "Typically," this feedback "is obtained from surveys." (*Id.* ¶ 1.)

With a typical survey approach, the event coordinator receives "survey responses" from the attendees, and the event coordinator "analyze[s] the survey responses to determine relevant feedback for the event." (Spec. ¶ 1.) The event coordinator can, for example, provide "a report to the presenter," and "[t]he report can be used by the presenter to improve the presentation." (*Id.* ¶ 19.) Needless to say, the reported feedback is only as good as the event coordinator's analysis and the survey data on which it is based. (*See id.* ¶ 1.) As such, the event coordinator would want to be sure that his/her analysis of the survey data accurately reflects the sentiments of

[3] US 2009/0306967 A1, published December 10, 2009.

[4] US 2009/0088610 A1, published April 2, 2009.

the attendees with respect to the event. (*See id.*) Put another way, the event coordinator would want to rely only upon "validated sentiments." (*Id.* ¶ 2.)

In the Appellant's invention, the attendees' survey data is received in the form of "sensor data" (i.e., the attendees are provided with devices which transmit "biometric data") and the survey-data analyzer is not a person but rather a "processor." (Spec. ¶ 12, *see also id.* ¶ 60.) The processor "receives" the survey data (i.e., the sensor data) (*id.* ¶ 60), "generates processed data" from the received data (*id.* ¶ 62), "determines the sentiment(s) of attendees of the event from the processed data" (*id.* ¶ 64), and is "capable of validating" the so-determined sentiments (*id.* ¶ 73).

ILLUSTRATIVE CLAIM
(with bolding, italicizing, and underlining added)

1. A method of obtaining feedback for an event, comprising:

receiving, *using a processor*, sensor data for a plurality of attendees of the event;

determining, *using the processor*, sentiments, of the attendees, for the event from the sensor data;

validating, *using the processor*, the sentiments of the attendees based upon a comparison of the sensor data with historical data for the plurality of attendees; and

outputting, *using the processor*, the validated sentiments, wherein

a selected sentiment of a first attendee is validated based upon a comparison of sensor data for the first attendee for a period of time with sensor data for a second attendee for the period of time.

REJECTION I

The Examiner rejects claims 1, 3–10, and 12–20 under 35 U.S.C. § 101 as being directed to a judicial exception (i.e., an abstract idea) without significantly more. (Final Action 8.) In other words, the Examiner concludes that the claims on appeal do not pass muster under the *Alice* framework for patent eligibility. We have carefully considered the Appellant's arguments regarding the wrongness of this conclusion (*see* Appeal Br. 7–10, *see also* Reply Br. 2–5), but we are unpersuaded thereby. Thus, we sustain this rejection.

The Alice Framework

In *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014), the Supreme Court provided a two-step framework to detect when an attempt is being made to patent an abstract idea in isolation. (*Id.* at 217–18.) In *Alice* step one, a determination is made as to whether the claim at issue is "directed to" an abstract idea. (*Id.* at 218.) If the claim at issue is "directed to" an abstract idea, *Alice* step two must be performed. (*See Alice*, 573 U.S. at 217–18.) In the second step of the *Alice* framework, a determination is made as to whether "additional elements" in the claim, both individually and as an ordered combination, contribute "significantly more" than the abstract idea. (*Id.)*

The Office provides examiners with guidance (the "2019 § 101 Guidance") for addressing whether a claim passes muster under the *Alice* framework for patent eligibility. (*See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019).) This Guidance consist of a two-pronged Step 2A ("Prong One" and "Prong Two") and a Step 2B. (*Id.* at 52.)

Analysis: Step 2A—Prong One

"In Prong One" of Step 2A, the 2019 § 101 Guidance tells examiners to "evaluate whether the claim recites a judicial exception," such as "an abstract idea." (2019 § 101 Guidance, 84 Fed. Reg. at 54.) The Guidance "extracts and synthesizes key concepts identified by the courts as abstract ideas," and these concepts include "[c]ertain methods of organizing human activity," and, more particularly "fundamental economic practices," "legal and commercial interactions," "advertising," and "marketing." (*Id.* at 52.)

The Examiner determines that independent claim 1 "recite[s] an abstract idea—a fundamental economic practice—customer feedback—that falls into the abstract idea subcategories of sales activities and commercial interactions." (Answer 4.)

As discussed above, the Appellant's invention encompasses a scenario in which feedback from the attendees is relied upon to enhance commercial interactions (e.g., advertising and/or marketing). Independent claim 1 recites steps that would be performed by an event coordinator in such a scenario. For example, the event coordinator would **receive** "data" (e.g., survey data) "for a plurality of attendees at the event," and the event coordinator would **determine** the "sentiments of the attendees" for the event "from" the received data, the event coordinator would **validate** "the sentiments of the attendees," and the event coordinator would only **output** "validated sentiments." (Appeal Br., Claims App.)

To be sure, independent claim 1 does not just recite validating the sentiments of the attendees. Claim 1 requires the validation to include "a comparison" of the received data "with historical data for the plurality of attendees." (Appeal Br., Claims App.) Claim 1 also requires "a selected

sentiment of a first attendee" to be validated "based upon a comparison" of the received data for the first attendee with the received data "for a second attendee" during the same "period of time." (*Id.*) But such historical and attendee-to-attendee comparisons would be coherent parts of the event coordinator's pursuit of validated sentiments.

Consequently, we agree with the Examiner that independent claim 1 recites an abstract idea under Prong One of Step 2A, and, therefore "requires further analysis in Prong Two." (2019 § 101 Guidance, 84 Fed. Reg. at 54.)

Analysis: Step 2A—Prong Two

"In Prong Two," the 2019 § 101 Guidance tells examiners to "evaluate whether the claim as a whole integrates the recited judicial exception into a practical application of the exception." (2019 § 101 Guidance, 84 Fed. Reg. at 54.) More specifically, the Guidance tells examiners to "evaluate integration into a practical application" by "[i]dentifying whether there are any additional elements recited in the claim beyond the judicial exception(s)," and then "evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application." (*Id.* at 54–55.)[5]

The Examiner identifies one additional element in independent claim 1, namely a *processor*, and the Examiner determines that this claimed

[5] "A claim that integrates a judicial exception into a practical application will apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception." (2019 § 101 Guidance, 84 Fed. Reg. at 54.)

computer component does not "integrate the abstract idea into a practical application." (Final Action 9.) The Examiner explains that the claimed *processor* is a "generic" computer component that "merely performs generic computer functions," and, therefore, "merely applies the abstract idea." (*Id.*)

The Appellant argues that "the Examiner has not identified all of the additional elements." (Appeal Br. 8.) According to the Appellant, the **receiving** and **outputting** steps set forth in independent claim 1 are additional elements. (*See id.*) As discussed above, sans the processor, these receiving and outputting steps would be performed by an event coordinator to obtain feedback from attendees of an event for commercial reasons. Thus, they are not additional elements beyond the recited abstract idea.

Also, according to the Appellant, the **determining** and **validating** steps should be considered additional elements because they involve sensor data. (*See* Reply Br. 3.) But claim 1 does not require the processor to actually interact with a sensor, it merely requires the processor to somehow, someway, receive sensor data. Thus, at the very most, the modifier "sensor" generally links the claimed method to a survey environment equipped with sensors. This does not, in and of itself, render the claim any less abstract. (*See* 2019 § 101 Guidance, Federal Register Vol. 84, No. 4, at 55.)[6]

The Appellant argues that "the claimed invention improves upon prior systems of providing automated feedback by validating the feedback received." (Appeal Br. 10.) The Appellant contends that a practical

[6] For example, limiting claims "to the particular technological environment of power-grid monitoring is, without more, insufficient to transform them into patent-eligible applications of the abstract idea at their core." (*Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016).)

application is achieved by the "improved/validated feedback" which "is then outputted and subsequently used as a basis for improving the presentation." (*Id*.) Thus, the Appellant is essentially saying that its invention provides an event coordinator with additional information to facilitate commercial interactions. But this facilitation does not improve the functioning of a computer, make it operate more efficiently, or solve any technological problem. To the extent that this facilitation provides an improvement, it improves the event coordinator's job performance, not the computer used as a tool by the event coordinator.[7]

The Appellant also seems to stress that its "improved/validated feedback" is accomplished "by comparing sensor data received from [the] attendees with historical data," and "comparing sensor data from one attendee to sensor data from other attendees." (Appeal Br. 10.) But, as discussed above, such historical and attendee-to-attendee comparisons would be coherent parts of an event coordinator's pursuit of validated sentiments. Insofar as the claimed comparisons have never before been considered by an event coordinator, and/or insofar as the claimed comparisons greatly improve the commercial feedback yielded by the event coordinator's analysis, this means that they amount to an improved

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[7] In the comparable commercial setting of trading commodities in an electronic exchange, "providing a trader with additional information to facilitate market trades" is "an abstract idea." (*Trading Techs. Int'l, Inc. v. IBG LLC*, 921 F.3d 1378, 1384 (Fed. Cir. 2019).) Likewise, providing "the trader with improved efficiency and versatility in placing, and thus executing, trade orders for commodities in an electronic exchange," is "focused on improving the trader, not the functioning of the computer." (*Trading Techs. Int'l, Inc. v. IBG LLC*, 921 F.3d 1084, 1091 (Fed. Cir. 2019).)

commercial strategy. And an improved commercial strategy still lies in the realm of abstract ideas.[8]

Thus, we agree with the Examiner that the *processor* is the only additional element recited in independent claim 1, and it does not individually integrate the recited abstract idea into a practical application.

That being said, the Guidance tells examiners that "[i]t is critical" that they "consider the claim as a whole" during the Prong Two analysis. (2019 § 101 Guidance, 84 Fed. Reg. at 55.) More particularly, "[w]hen evaluating whether an element (or combination of elements) integrates an exception into a practical application, examiners should give careful consideration to both the element and how it is used or arranged in the claim as a whole." (*Id.*) Here, however, independent claim 1 does not require any specific arrangement of the *processor;* and claim 1 only requires "using" the *processor* to perform the **receiving**, **determining**, **validating**, and **outputting** steps. (Appeal Br., Claims App.)

Consequently, we agree with the Examiner that independent claim 1 does not integrate the recited abstract idea into a practical application under Prong Two of Step 2A, thereby "triggering the need for further analysis" under Step 2B. (2019 § 101 Guidance, 84 Fed. Reg. at 51.)

Step 2B Analysis

In Step 2B, the 2019 § 101 Guidance tells examiners to "evaluate the additional elements individually and in combination" to determine whether

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[8] An innovator cannot acquire patent protection for a commercial "advance" (e.g., an advance in "finance") "itself," no matter how "groundbreaking" this advance may be. (*SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1170 (Fed. Cir. 2018).)

"they provide an inventive concept (i.e., whether the additional elements amount to significantly more than the exception itself)." (2019 § 101 Guidance, 84 Fed. Reg. at 56.) If a claim's additional elements consist of a conventional arrangement of conventional computer components performing routine computer functions, they will not contribute significantly more to an abstract idea, and the claim will not pass muster under the *Alice* framework. (*See Alice* 573 U.S. at 223–24.)

Here, the Examiner determines that the additional element in independent claim 1 (i.e., the *processor*) does not contribute significantly more to the abstract idea. (*See* Final Action 9.) The Examiner explains that the Specification conveys that the processor can be a "generic, off-the-shelf computer component." (Answer 9; *see also* Spec. ¶ 30–32, Fig. 2.) As discussed above, the processor is not claimed in combination with any other computer component.[9]

Consequently, we agree with the Examiner that the claimed invention "does not amount to significantly more than the exception itself" under Step 2B, whereby "the claim is ineligible." (2019 § 101 Guidance, 84 Fed. Reg. at 56.)

Summary

The Examiner correctly concludes that independent claim 1 does not pass muster under the *Alice* framework for patent eligibility, and thus we

[9] We nonetheless note that the Specification conveys that the attendee's sensor-carrying devices are conventional computer components "capable of generating one or more different types of sensor data" (Spec. ¶ 21), and that these devices communicate with the *processor* "via wired and/or wireless communications links" (*id.* ¶ 23, *see also* Fig. 1).

sustain the rejection under 35 U.S.C. § 101. Per the Appellant, "claims 3–10, and 12–20 stand or fall together with independent claim 1." (Appeal Br. 7.)

REJECTION II

The Examiner rejects claims 1, 3–10, and 13–20 under 35 U.S.C. § 112 "as failing to comply with the written description requirement." (Final Action 11.)[10] More particularly, the Examiner concludes that the Specification fails "to show possession" for a certain claim limitation. (*Id.*) We have carefully considered the Appellant's arguments regarding the wrongness of this conclusion (*see* Appeal Br. 10–12, *see also* Reply Br. 5–8), and we are persuaded thereby. Thus, we do not sustain this rejection.

Written Description

"The test for the sufficiency of the written description 'is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.'" (*Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 682 (Fed. Cir. 2015) (citation omitted).) "The written description requirement is not met if the specification merely describes a 'desired result.'" (*Id.*) Instead, the important question "is whether the specification shows possession by the inventor of how [the claimed function] is achieved." (*Id.* at 683.)

[10] More specifically, the claims are rejected "under 35 U.S.C. [§] 112(a) or 35 U.S.C. [§] 112 (pre-AIA), first paragraph." (Final Action 11.)

The Office provides examiners with guidance (the "2019 § 112 Guidance") for discerning whether a claim meets the requirements of 35 U.S.C. § 112 "where functional language is used to claim computer-implemented inventions." (Examining Computer-Implemented Functional Claim Limitations for Compliance With 35 U.S.C. [§] 112, 84 Fed. Reg. 57 (Jan. 7, 2019).) The 2019 §112 Guidance particularly addresses written-description issues that arise when a claim "recite[s] only the idea of a solution or outcome to a problem" and the specification "fail[s] to recite details of how the solution or outcome is accomplished." (*Id.*)

Analysis

The 2019 § 112 Guidance tells examiners that "the specification must provide a sufficient description of an invention, not an indication of a result that one might achieve," or, more particularly, "how" the claimed function is achieved. (2019 § 112 Guidance, 84 Fed. Reg. at 61.)

The Examiner determines that the appealed claims recite a functional limitation in terms of a desired result. (*See* Final Action 13.) The limitation at issue is "a selected sentiment of a first attendee is validated based upon a comparison of sensor data for the first attendee for a period of time with sensor data for a second attendee for the period of time." (Appeal Br., Claims App.)

The Appellant argues that the claim limitation at issue recites "a specific operation" (i.e., a validation based on the attendee-to-attendee comparison of sensor data), "not a desired result." (Reply Br. 6.) According to the Appellant, the Examiner "has not identified anything about the claimed limitations that 'specif[ies] a desired result.'" (*Id.* at 5–6.) But the Examiner's rejection, as a whole, reveals that the "desired result" of concern

is the validation achieved by the attendee-to-attendee comparison. (*See* Final Action 11–13; *see also* Answer 10–12.)

The Examiner determines that the Specification does not show possession of how this desired result is achieved. (*See* Final Action 13.) According to the Examiner, "[n]owhere" in the Specification "is there any discussion of comparing first/second attendee's sentiments or more importantly validating a first attendee's sentiment by comparing a first attendee's sensor data to any other attendee's (second) sensor data as claimed." (Final Action 12.)

The Appellant argues that the Specification does sufficiently discuss how a validation based on the attendee-to-attendee comparison of sensor data is achieved. (*See* Appeal Br. 11–12.) We agree.

The Specification discusses how the sensor data is "timestamped" so that it can be correlated with "particular times" and how sensor data is "attributed to particular attendees based upon the providing device." (Spec. ¶ 46.) The Specification discusses how the biometric data of a "selected attendee" may "differ from the biometrics of one or more of the other attendees." (*Id.* ¶ 68.) The Specification discusses a determination of whether this sensor-data difference "is attributable to [the] sentiment expressed (or lack thereof) of the selected attendee." (*Id.*) The Specification discusses using the biometric data of an attendee (i.e., the selected attendee) that "differs from that of the other attendees" to "validate the sentiment." (*Id.* ¶ 70.) And the Specification provides the following examples:

> [T]he system may increase or decrease the confidence score for sentiment attributed to the selected attendee based upon the detected change or difference in biometric data compared to the other attendees. In illustration, an increase in heart rate may be

> attributed to disagreement of the selected attendee with sentiments being expressed by the other attendees in the group at that time, excitement, and so forth.
>
> [T]he system is capable of determining that biometric data of an attendee that does not match biometric data of others in a group, e.g., while a discussion is taking place following the event, indicates that the attendee with the mismatched biometrics was not taking part in the conversation. In that case, any sentiments determined for the attendee for that time or time period may be disregarded or ignored.

(Spec. ¶¶ 70–71.) Thus, the Specification does much more than provide an indication of a result that one might achieve, as it discusses, in detail, how the claimed validation is achieved via the attendee-to-attendee comparison of sensor data.

The 2019 § 112 Guidance tells examiners to "determine whether the specification discloses the computer and the algorithm(s) that achieve the claimed function in sufficient detail that one of ordinary skill in the art can reasonably conclude that the inventor possessed the claimed subject matter at the time of filing." (2019 § 112 Guidance, 84 Fed. Reg. at 61.)

The Examiner determines that the Specification "fails to provide a specific method, technique, algorithm, or examples as to how to a [sic] selected sentiment of a first attendee is validated based upon a comparison of sensor data for the first attendee with sensor data for a second attendee for the time period as claimed." (Final Action 12.) But the Appellant may express an algorithm "in any understandable terms" including "prose" or a "flow chart." (2019 § 112 Guidance, 84 Fed. Reg. at 62.) Here, the record does not reflect that the Examiner took the Appellant's prose (*see* Spec.

¶¶ 37–88) and/or flow charts (*see id.*, Figs. 3, 4) into account when determining that the Specification lacked the prerequisite algorithm.

The Examiner determines that the Specification "does not provide a disclosure of the computer" that performs "each claimed specialized function." (Answer 13.) However, the Examiner acknowledges that the claims on appeal involve "a generic processor performing generic computer functions." (Final Action 5.) And, as pointed out by the Appellant (*see* Reply Br. 6), "[t]he level of detail required to satisfy the written description requirement varies" depending on "the complexity and predictability of the relevant technology." (2019 § 112 Guidance, 84 Fed. Reg. at 61.)

The Examiner also seems to have enablement-like concerns about the sentiments derived from attendees' heart rates and the comparisons therebetween. (*See* Answer 11–12.) Particularly, the Examiner is concerned that "[t]here are entirely too many variables," and that one of ordinary skill in the art would not know how this "actually work[s]" and/or how this is "done." (*Id.* at 11.) Inasmuch as the Examiner's particular concerns are not explicitly addressed in, and completely resolved by, the Specification (*see* Spec. ¶¶ 69–72, 85), the prior art of record evidences the conventional wisdom possessed by one of ordinary skill in the art with respect to deriving sentiments from attendees' heart rates (*see e.g.*, Lee ¶¶21–23; Cunnington[11] 2:65–3:1, 7:18–23; Chang[12] 8:21–30). And "[i]nformation that is well known in the art need not be described in detail in the specification." (2019 § 112 Guidance, 84 Fed. Reg. at 61.)

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[11] US 8,670,018 B2 issued March 11, 2014.

[12] US 10,061,977 B1 issued August 28, 2018.

Consequently, we agree with the Appellant that the Examiner does not adequately establish that the Specification fails to convey possession of an invention that achieves the claimed result (i.e., the validation achieved by the attendee-to-attendee comparison).

Summary

The Examiner incorrectly concludes that the appealed claims do not satisfy the written-description requirement, and, thus we do not sustain the rejection under 35 U.S.C. § 112.

CONCLUSON

Claims Rejected	**35 U.S.C. §**	**Reference(s)/Basis**	**Affirmed**	**Reversed**
1, 3–10, 12–20	101	Eligibility	1, 3–10, 12–20	
1, 3–10, 13–20	112(a)	Written Description		1, 3–10, 13–20
Overall Outcome			1, 3–10, 12–20	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED